



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

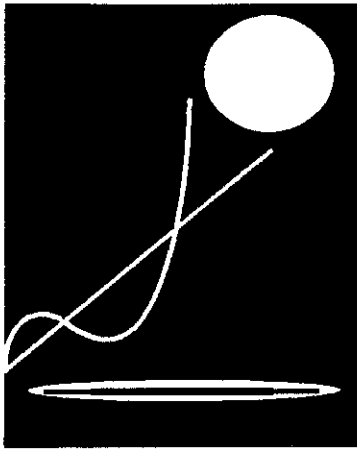
AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Food Marketing Policy

Issue Paper

No. 1

September 30, 1992

Food Marketing Policy Issue Papers address particular policy or marketing issues in a non-technical manner. They summarize research results and provide insights for users outside the research community. Single copies are available at no charge. The last page lists all Food Policy Issue Papers to date, and describes other publication series available from the Food Marketing Policy Center.

**Tel (203) 486-1927
Fax (203) 486-2461**

The Changing Structure and Performance of the Food Distribution System: Implications for Low Income Urban Consumers

by

**Ronald W. Cotterill
Food Marketing Policy Center
University of Connecticut**

**Food Marketing Policy Center, Department of Agricultural and Resource Economics,
University of Connecticut, 1376 Storrs Road, U-21, Storrs, CT 06269-4021**

The Changing Structure and Performance of the Food Distribution System: Implications for Low Income Urban Consumers

*Ronald W. Cotterill**

I. Introduction

I would like to thank the committee for inviting me to testify today. My comments will be divided into three sections. First, I would like to review the changing structure of the food distribution industry and try to highlight how changes in the structure of the system affect access to food by low income urban consumers. Then, I will move on to discuss performance issues and highlight impacts on low income urban consumers. Finally, I will discuss policy options including the possibility of joint public private initiatives to improve the structure and performance of the food distribution system for low income urban consumers.

In preparing my testimony I came across a 1987 report by this committee titled "Obtaining Food: Shopping Constraints on the Poor." It provides an excellent review of the research prior to 1987 and develops very credible conclusions and recommendations that hold to a large extent in 1992. My comments today will primarily supplement that earlier report by explaining recent major shifts in the organization and performance of the industry, commenting on recent research on the industry and the food access issue, and suggesting some new policy initiatives.

* The author is Director of the Food Marketing Policy Center, Agricultural and Resource Economics, University of Connecticut, Storrs, CT. Paper presented as testimony before the House Select Committee on Hunger in Washington, D.C. on September 30, 1992.

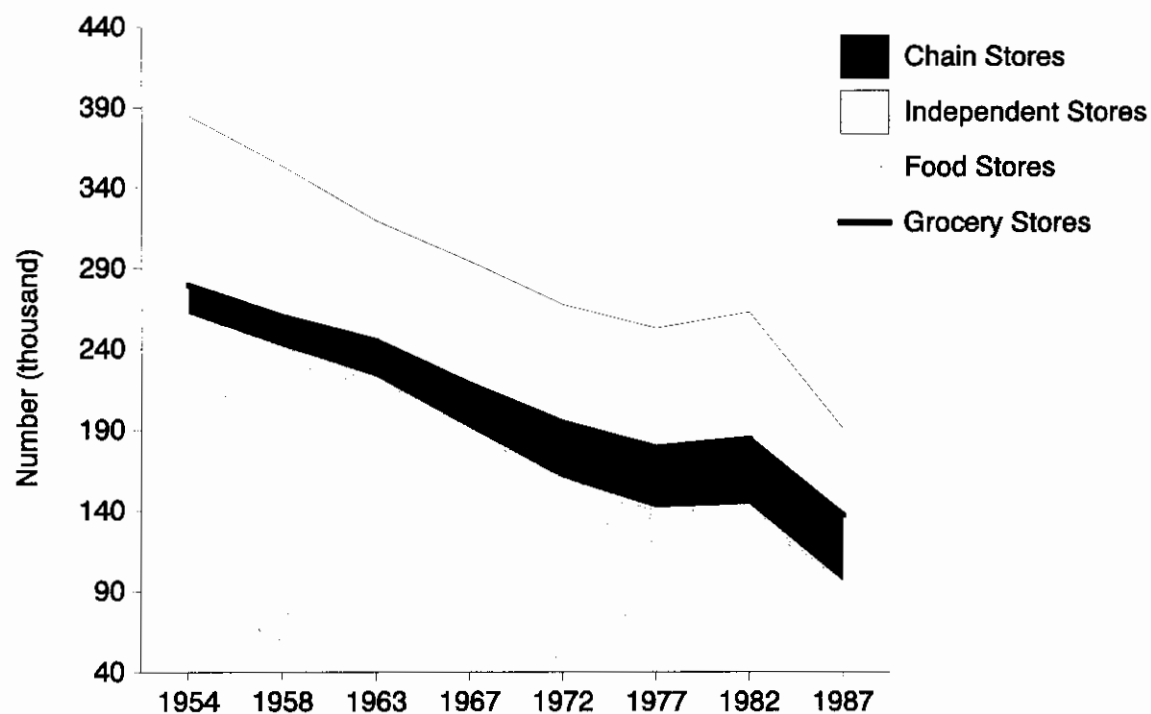
II. Changing Structure of the Food Distribution System

The trend towards fewer, larger grocery stores continued unabated during the 1980s and quite possibly accelerated. The number of food stores of all types declined dramatically from 1982 - 1987 (Figure 1). Total grocery store sales continued its rise (Figure 2). Consequently, sales per store continued to rise during the 1980s.

A recent special tabulation of the 1987 Census Retail Trade data commissioned by the Food Marketing Policy Center, University of Connecticut, provides more detailed evidence on the penetration of supermarkets and rising seller concentration in local market areas. Figure 3 indicates that the percent of grocery stores that were supermarkets jumped dramatically from 14.3 percent in 1982 to over 22 percent in 1987. The share of grocery store sales accounted for by these supermarkets was 80 percent in 1987, up from 74 percent in 1982.

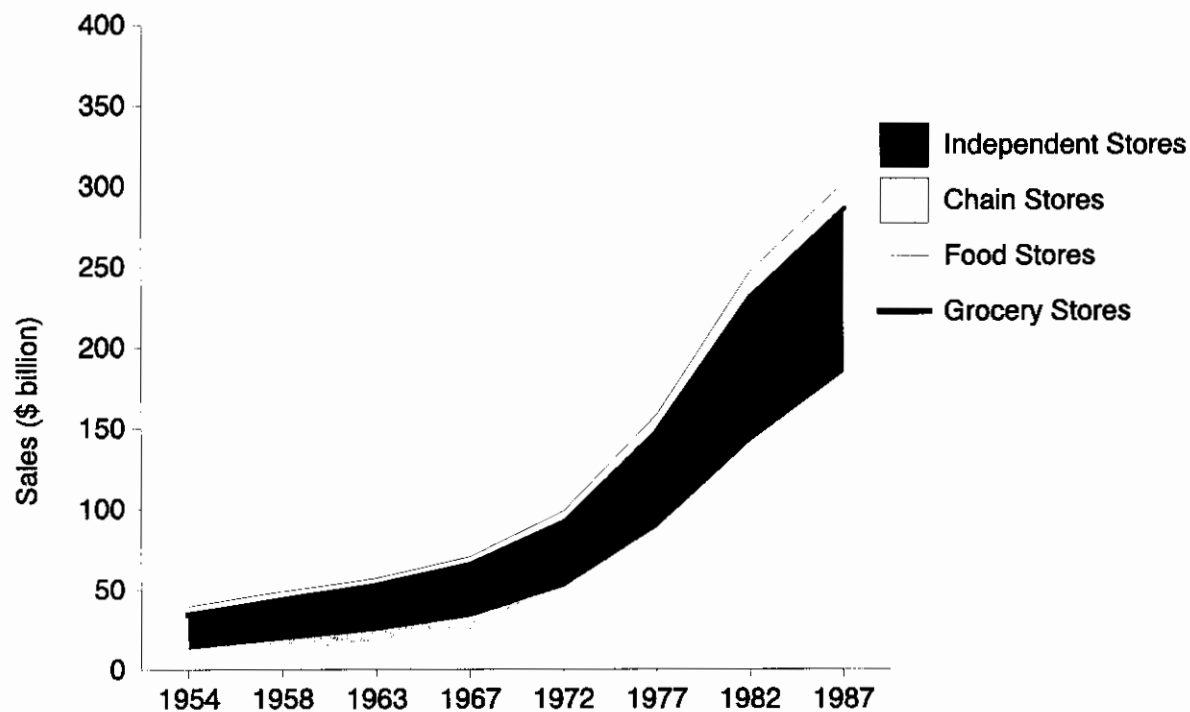
Given the well documented shift of supermarkets away from low income urban neighborhoods, residents in such neighborhoods have only been able to share in this shift to supermarkets by shopping at a greater distance from their homes. Those that do not have access to transportation are served by the distribution system that is left behind in urban neighborhoods. Such retail outlets tend to include older, smaller supermarkets, and grocery stores that are smaller than supermarkets (i.e. stores with less than \$2 million in annual sales and a more limited selection of items), specialty food markets, and convenience stores.

In addition to becoming the primary distribution vehicle for the grocery industry, supermarkets are falling under the ownership of relatively few large grocery chains in each metropolitan area. Figure 4 documents the increase in the share of grocery store sales accounted for by the top four supermarket chains in 87 metropolitan areas for which comparable data are



Source: Marion 1986; Progressive Grocer, April 1988

Figure 1. NUMBER OF FOOD, GROCERY, INDEPENDENT AND CHAIN STORES



Source: Marion, 1986; Progressive Grocer, April 1988.

Figure 2. TOTAL FOOD, GROCERY, CHAIN, AND INDEPENDENT STORE SALES

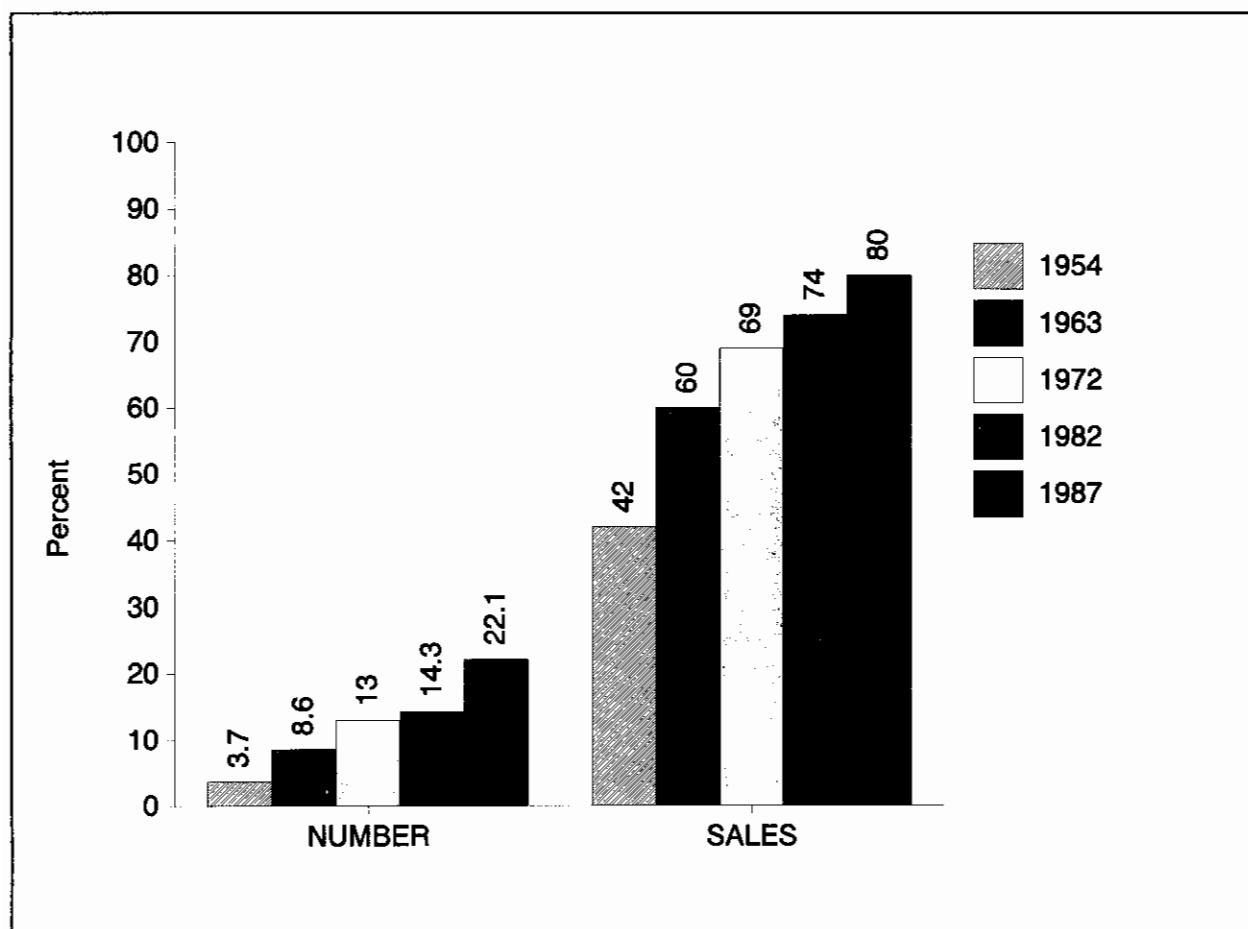


Figure 3. SUPERMARKETS AS A PERCENTAGE OF GROCERY STORE NUMBERS AND SALES

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

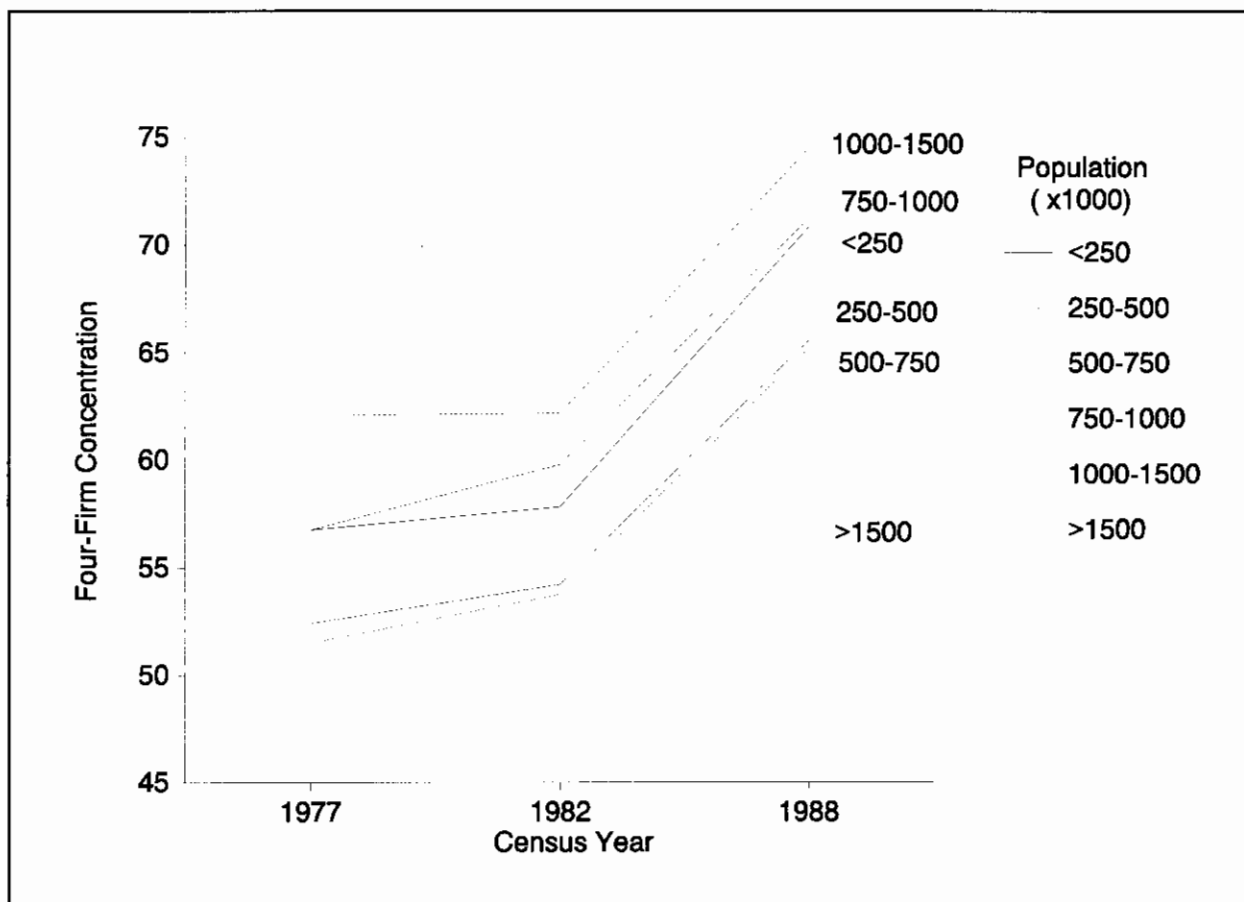


Figure 4 Average Four-Firm Concentration Ratio for 87 Same Definition MSAs by 1987 Population, 1977-1987.

Number of MSAs per Population Group

Group (x 1000)	Number of MSAs
< 250	44
250-500	18
500-750	11
750-1000	3
1000-1500	4
> 1500	7

Sources:

Parker, R.C. 1985. Concentration, Integration and Diversification in the Grocery Retailing Industry. Bureau of Economics. Federal Trade Commission.

1982 Census of Retail Trade, Special Tabulation, Food Marketing Policy Center, University of Connecticut.

1987 Census of Retail Trade, Special Tabulation, Food Marketing Policy Center, University of Connecticut.

1989 Statistical Abstract.

available.¹ The concentration trends are displayed for different size metropolitan areas. Figure 4 indicates that concentration was lowest in 1987 for metropolitan areas that had more than 1.5 million people, however, there has been a persistent upward trend in concentration for all city size groups. The concentration trends tend to be rather stable from 1977 - 1982, however, during the 1980s there was a dramatic increase in seller concentration. A significant component in the concentration was due to the relaxed horizontal and conglomerate merger policy during the 1980s. This relaxation contributed significantly to this rise in concentration by allowing leading firms in local markets to merge and by allowing major potential entrants to enter by buying established supermarkets rather than building new ones (Cotterill, 1988). Concentration has also increased because leading chains have adopted popular new store formats that have enabled them to expand their market shares.

During the 1980s the food distribution system became more diverse and segmented. Figure 5 illustrates how different store formats meet different consumers desires for service (higher prices) and product mix. This fragmentation of the delivery system into strategic groups has been driven by rising incomes and shifting lifestyles that have resulted in distinct segments of the population desiring particular supermarket formats. Conventional supermarkets are defined as full line grocery stores that are less than 30,000 square feet. Very few of these relatively small supermarkets were built during the 1980s. Instead, supermarket chains moved to the construction of super stores which are defined as full line supermarkets with more than 30,000 square feet of selling space. Superstores carry auxiliary departments such as an in-store

¹ Appendix Table A-1 lists the metropolitan areas included in Figure 4 that have more than 500,000 residents. The same trend holds in all U.S. metropolitan areas with unadjusted data, however, using a larger sample requires adjusting for the impact of changes in boundaries on concentration.

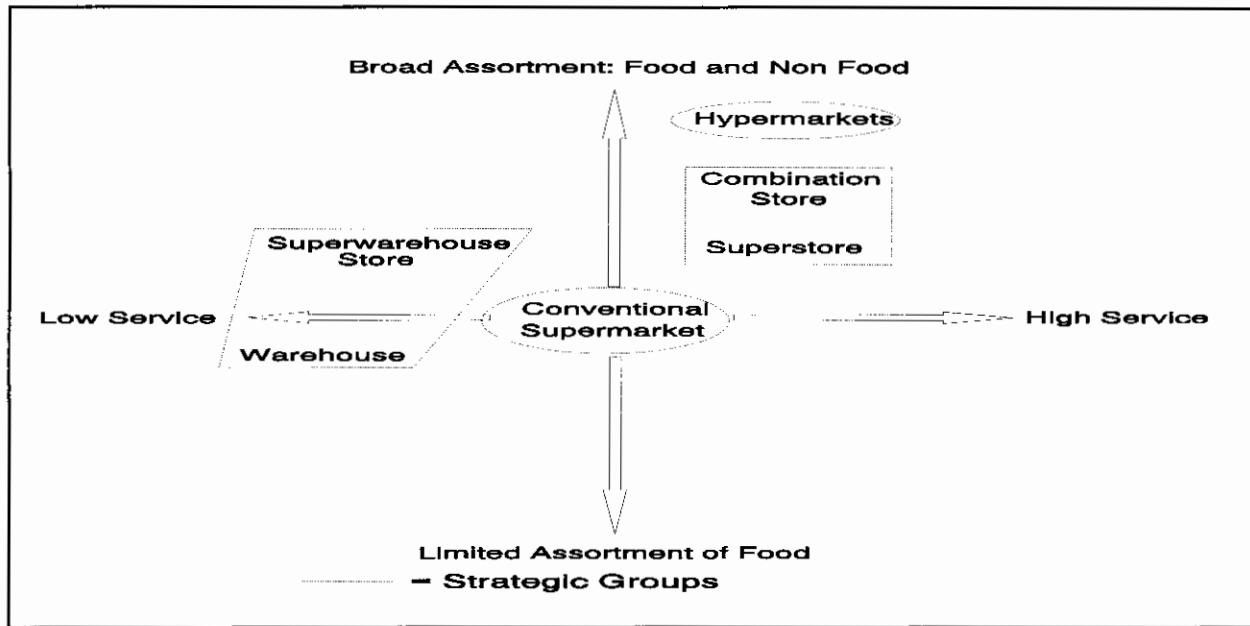


Figure 5. SUPERMARKET FORMATS/STRATEGIC GROUPS

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

bakery, a delicatessen, and extensive lines of non food items. In the late 1980s superstores averaged 43,000 square feet in size. Another store format that is increasingly popular during the 1980s is the combination store which combines a grocery store with a drug store. A third format, the hypermarket, also includes a full scale mass merchandise operation.

Combination stores that were built in the late 1980s average 58,000 square feet in size. Although they are larger than traditional supermarkets, superstores and combination stores have been shown by research to have higher prices (Cotterill, 1983). The prices tend to be higher because they offer more products and more services in a fancier shopping environment than the smaller traditional supermarkets. Directly observable market evidence on this proposition is available by examining the rapid expansion of the Food Lion chain throughout the southern United States. Food Lion has chosen to build traditional supermarkets that offer a standard supermarket product line without fancy services. This "back to basics" merchandising strategy in combination with an aggressive product procurement strategy at the wholesale level and possibly lower wages due to being a non union operation have enabled Food Lion to offer grocery products at significantly lower prices to consumers.

Food Lion's stores aren't big or fancy, but they're clean and well organized, offering just as many food products as the competition but eliminating profitable but slow-moving nonfood items like prescription drugs, pots and pans and hardware. The stores, requiring little space for nonfood items, average 25,000 square feet, about 20% to 35% smaller than competitors like Winn-Dixie or Kroger (Poole, 1991).

To date this revival of the conventional chain supermarket has not materialized in inner city urban neighborhoods.

Another format that gained increasing consumer acceptance during the late 1980s and early 1990s is the warehouse or superwarehouse supermarket. Super warehouse supermarkets

are stores with more than 30,000 square feet. Warehouse stores focus upon offering grocery products at the lowest possible price by eliminating in-store services and amenities. Research has shown that warehouse stores offer food products at prices that are 5 to 10 percent lower than super stores or combination stores. Their presence in a retail market also tends to be pro competitive because they force other types of supermarkets to lower their prices (Marion, 1992, Cotterill, 1983).

Warehouse supermarkets probably offer the best value for low income urban consumers, however, they have tended to locate in suburban areas rather than the central city. One notable exception to this location phenomena is the Shoppers Food Warehouse chain that has rapidly grown in the Washington, D.C. area over the past five years. The chain currently operates 28 warehouse supermarkets in Washington, D.C. with a market share of 10.6 percent, up from 15 supermarkets and 4.6 percent market share in 1986 (Metromarket Studies, 1987, 1992). Shoppers Food Warehouse stores average 48,000 square feet. The stores are equipped with scanners and advanced electronic ordering capabilities, and have instore bakeries and delicatessens (Progressive Grocer, 1992).

Wholesale price clubs (not shown in Figure 5) are mass merchandisers such as B.J.'s Wholesale Club, Sam's Club, and Pace Membership Warehouse. These large mass merchandise outlets tend to offer consumers food products that they have purchased on special deals from food manufacturers at very attractive prices. They also tend to offer large institutional sizes or whole cases of grocery products at substantial savings to consumers. In addition to not being located in urban central city neighborhoods, these stores require consumers to invest substantial amounts of money, and hold large inventories of food products in their homes, for consumption

Table 1 NUMBER AND SALES, BY TYPE OF FORMAT: 1980 AND 1988

Supermarket Format					Percent Distribution			
	Number		Sales (bil.dol.)		Number		Sales	
	1980	1988	1980	1988	1980	1988	1980	1988
Supermarket totals	26,321	26,300	157.0	230.9	100.0	100.0	100.0	100.0
Conventional	21,009	15,590	114.7	98.8	79.8	57.8	73.1	42.8
Superstore	3,150	5,600	27.8	69.5	12.0	20.8	17.7	30.1
Warehouse	1,670	3,375	6.6	28.8	6.3	12.5	4.2	12.5
Combination food & drug	475	1,250	6.3	19.9	1.8	4.6	4.0	8.6
Superwarehouse	7	375	1.6	8.9	(z)	1.4	1.0	3.9
Hypermarket	10	110	(NA)	5.0	(z)	.4	(NA)	2.2

Source: Statistical Abstract of the United States, 1990, p. 774.

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

over an extended period of time. Given the lack of financial resources and often the lack of space for appropriate storage of food at home this particular option is often not viable for low income consumers. Table 1 documents the penetration of the newer formats. The share of sales made by conventional supermarkets declined from 73.1 percent in 1980 to 42.8 percent in 1988, whereas the share for the more highly merchandised and expensive superstores increased from 17.7 percent to 30.1 percent and the share of the lower service lower price warehouse supermarkets increased from 4.2 to 12.5 percent. The wholesale price clubs are so recent that they do not appear in the 1988 data, however, they are growing rapidly in some local market areas.

The merger and leveraged buyout wave of the 1980s affected the food retailing more than any other industry in the U.S. economy and has major implications for the performance of the industry, including its impact on low income urban consumers. Mergers and hostile takeover induced leveraged buyouts during the 1979-1989 period affected 81.6 percent of top 20 chain sales. Table 2 lists the top 20 chains for 1972, 1979 and 1989. Note that the list remains essentially the same for 1972 and 1979. A&P's chronic management failure resulted in severe retrenchment for that company during the 1970s. It closed over a thousand stores, barely increased sales in nominal terms, and dropped to the number three position. By comparison, Safeway Stores Inc. more than doubled its nominal sales during this period and moved into the number one position.

In 1979 major changes began to affect the industry. A&P was acquired by Tengelmann, the largest supermarket chain in Europe which is owned and controlled by a West German businessman, Erivan Haub. Also in 1979, American Stores, Inc. (Alpha Beta stores in the west,

Acme stores on the east coast) was acquired by Carl Skaggs who until then primarily operated drug stores. Under new leadership, these two old line companies embarked on aggressive merger campaigns.

A&P's strategy, as explained by its Chairman and CEO James M. Woods to the New York Times, is to acquire and "operate as many dominant regional chains as we can". He further stated "that large volume sales are not the total answer. High market share (in local markets) and good profit return on a local level are..." (Delchamps, Inc., 1988). Since 1979, A&P has made good on this strategy. It acquired Kohls the leading firm in Milwaukee and number two firm in Madison, Wisconsin in 1983. In 1984 it also acquired the leading firm in Madison. A&P then made major acquisitions in other markets including Shopwell (New York, 1986), Waldbaums (the leading firm in New York, and in Connecticut SMAs, 1986), Bormans (the leading firm in Detroit, 1989), and Steinbergs (a major chain in Ontario, 1990). A&P tried unsuccessfully three times to take over Delchamps, a leading regional chain in the South (1986, 1987, 1988). It also tried unsuccessfully to acquire Chathams Supermarkets, Inc. in 1984 (then the second largest chain in Detroit). Since A&P was already in most of these SMA markets, the mergers were horizontal resulting in increased market share for A&P and the number one market share position in Milwaukee, Madison, New York, and Detroit.

Under Carl Skaggs' aggressive leadership, American Stores also launched on an acquisition campaign. American preferred, however, to go for really big companies. In 1984 they acquired Jewel Tea Companies the eighth largest chain in the U.S. in 1979 (Jewel in Chicago area, Star Markets in Boston, Buttreys in the upper Great Plains, and Eisners in Indiana). Since American operated no supermarkets in the SMAs where Jewel operated this was

Table 2 Top Twenty Retail Chains of 1972, 1979, and 1989, Ownership/Finance Changes Between 1979 and 1989.

Rank	Name Sales (\$ million)/ Share (%) 1972 ²	Name Sales (\$ million)/ Share (%) 1979 ¹	Changes 1979-1989	Name Sales (\$ million)/ Share (%) 1989 ¹			
1	A&P (6,369) 7.21	Safeway (13,718) 7.52	(LBO-KKR 1986)	American (22,004) 6.27			
2	Safeway (6,057) 6.86	Kroger (9,029) 4.95	(RECAP-G.Sachs 1988) ³	Kroger (18,832) 5.37			
3	Kroger (3,791) 4.29	A&P (6,684) 3.66	(acquired by Tengelmann 1979)	Safeway (14,325) 4.08			
4	ACME (American) (2,025) 2.29	American (6,121) 3.36	(acquired by Skaggs 1979)	A&P (11,100) 3.16			
5	Jewel (2,009) 2.28	Lucky Stores (5,816) 3.19	(acquired by American 1988)	Winn-Dixie (9,151) 2.61			
6	Lucky (1,988) 2.25	Winn-Dixie (4,931) 2.70		Albertson's (7,420) 2.11			
7	Food Fair (1,980) 2.24	Grand Union (3,138) 1.72	(LBO-Mgmt, 1988, acquired by Miller, Tabak, Hirsch 1989)	SGC (6,299) 1.79			
8	Winn-Dixie (1,834) 2.08	Jewel Cos. (2,818) 1.54	(acquired by American 1984)	Publix (5,386) 1.53			
9	Grand Union (1,380) 1.56	Albertson's (2,674) 1.47		Vons (5,200) 1.48			
10	Supermarkets GC (SGC) (1,194) 1.35	SGC (2,370) 1.30	(LBO-Mgmt, 1987)	Food Lion (4,717) 1.34			
11	National Tea (1,090) 1.23	Stop & Shop (1,879) 1.03	(LBO-KKR, 1988)	Stop & Shop (4,636) 1.32			
12	First National (849) .96	Publix (1,800) .99		AHOLD ⁴ (3,630) 1.03			
13	Stop & Shop (774) .88	Dillon (1,792) .98	(acquired by Kroger, 1983)	Giant Food (3,250) .93			
14	Albertson's (682) .77	Von's (1,500) .82	(LBO-Mgmt, 1985 from Household Int.)	Grand Union (2,717) .77			
15	Publix (676) .77	Food Fair (1,492) .82	(bankrupt, exited 1986)	H. E. Butt (2,586) .74			
16	Fisher Foods (650) .74	First National (1,365) .75	(LBO, acquired by AHOLD 1985)	Ralphs (2,556) .73			
17	Giant Food (496) .56	Fisher Foods (1,336) .73	(merged with Riser Foods, 1988, divested main division Dominick's)	Fred Meyer (2,285) .65			
18	Dillon (406) .46	Giant Food (1,243) .68		Bruno's (2,134) .61			
19	Waldbaum (394) .45	Waldbaum (1,103) .60	(acquired by A&P, 1986)	Dominick's (2,000) .57			
20	Fred Meyer (349) .40	Fred Meyer (1,060) .58		Hy-Vee (1,800) .51			
Top Twenty Sales		34,993	37.49%	71,869	38.38%	132,028	37.61%
Total Grocery Sales		93,328		187,242 ³		351,000	

Source: ¹ 1979, and 1989 sales reported by Progressive Grocer Marketing Guidebook 1981, 1991; Bureau of Census, Statistical Abstract, 1981.
² Cotterill and Haller, 1987; Bureau of Census, Statistical Abstract, 1977.
³ After 1977, Census reports establishments with payroll, the 1979 figure is adjusted upward based on the ratio of total sales to payroll sales for the 1977 census.
⁴ Includes Giant Food Stores, Carlisle, PA., Bi-Lo, and First National.
⁵ In response to hostile takeover by Haft family, Kroger with Goldman-Sachs did a leveraged recapitalization. Operationally it is equivalent to an LBO.

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

a pure market extension merger; however, it eliminated American as a potential entrant into these markets. In 1988 American acquired Lucky Stores, Inc. (the fifth largest chain in 1979). In return it offered to spin off its Eagle supermarket division located in Illinois. This \$22 billion in sales mega-merger was a horizontal merger in several California metropolitan areas. The Federal Trade Commission consented to the merger after requiring American to divest between 30-40 stores in order to obtain 362 Lucky Stores in California. However, the California Attorney General launched a more vigorous challenge, carried it successfully to the Supreme Court, and in early 1990, forced American to divest either all of its Alpha Beta or Lucky Stores in California before 1994. American divested the Alpha Beta chain (145 supermarkets) to Food 4 Less in April 1991.

The other major type of strategic move that dominated the supermarket industry during the 1980s was the hostile takeover attempt and subsequent leveraged buyout (LBO) by the successful raider or by the attacked management with assistance from a cooperating investment bank. The first and largest was the 1986 hostile takeover attempt on Safeway by the Haft family. Safeway management countered with a LBO financed by Kohlberg, Kravis and Roberts (KKR). In 1987, Supermarkets General (Pathmark, Purity Supreme, Heartland Supermarkets) went LBO under pressure from a hostile takeover threat. In 1988 the management of Stop and Shop Supermarkets, Inc. and Kroger, in response to hostile takeover attempts by the ubiquitous Haft family, took their firms private with the assistance of KKR. In 1989, 24 percent ownership and effective control of Grand Union (New York, Connecticut, Pennsylvania, New Jersey and Vermont) was acquired by the investment firm Miller, Tabak, and Hirsch to complement their prior acquisitions of Weiss Markets (Pennsylvania), P&C (New York and Vermont), and Big

Table 3 EXPANSION STRATEGIES OF THE TOP TWENTY RETAIL CHAINS OF 1972, 1981 THROUGH 1990

Chain	Denovo Entry	Entry Merger	Horizontal Merger
A&P	8	6	11
Safeway	7	0	4
Kroger	10	12	5
American	8	30	12*
Jewel Co.	4	0	0
Lucky	4	0	6
Food Fair	0	0	0
Winn Dixie	1	0	3
Grand Union	6	0	0
SGC	1	4	2
National Tea	0	0	0
First National	2	0	1
Stop & Shop	1	0	0
Albertson's	16	2	2
Publix's	0	0	1
Fisher	2	0	1
Giant	1	0	0
Dillon	2	0	0
Waldbaum	0	0	0
Meyer	1	0	0
Total	74	54	48

* To be divested by 1994 due to successful challenge of American's acquisition of Lucky by the State of California.

Source: Metro Market Studies, Grocery Distribution Guide and Analysis 1979-1991; The Food Institute Report, various issues; Supermarket News, various issues.

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

Bear (Ohio). This is the last major LBO in the industry and is an LBO on top of a prior LBO by Grand Union management.

Although mergers were the primary vehicle for expansion by many of the top 20 chains, most also entered one or more new markets by building new stores (de novo entry). Fighting one's way into a new market with new stores, however, was clearly not the preferred expansion strategy. Table 3 reports the number of markets entered by each top twenty chain by de novo entry, entry by merger, and the number of markets where it expanded by acquiring a direct competitor (horizontal merger). Note that Albertsons expanded almost exclusively by de novo entry. Rather than acquiring regional firms with leading market positions, as A&P did, or acquire top 10 national chains as American did, Albertsons built stores and expanded its own management cadre.

None of these de novo entries occurred in the urban core of large cities where substantial numbers of low income consumers live. Entry by large chains has tended to occur with superstores or combination store formats in rapidly growing cities that have relatively low concentration and are served by few top 20 chains.² Warehouse and possibly conventional supermarkets modeled after Food Lion represent a strategic group that are short of their market potential in many SMAs. Given that large and leading chains in many local markets operate superstores and combination stores they represent a "gateway" to entry for new firms.

It is not always clear, however, that consumer preferences for new store formats are quickly or completely honored. There is ample evidence of strategic behavior by incumbents to forestall entry. Zone pricing can be employed very selectively against a firm entering with

² For an Analysis of entry conduct by the top 20 chains see Cotterill and Haller (1992).

one, two, or three stores, or an incumbent may lower prices throughout the market in response to multiple store entry by a large entrant. An early and classic example is the use of zone pricing by Giant and Safeway to force Shoprite to withdraw from the highly concentrated Washington, D.C. market (FTC, 1969). A more recent example is Food Lion's entry into Jacksonville, Florida.

Months before its August 1987 invasion of Jacksonville, Florida, hometown to primary rival Winn-Dixie, Food Lion blanketed the market with ads that warned shoppers "Food Lion is coming to town, and prices will be going down." Sure enough, even before a single store opened, Winn-Dixie chopped prices by 5% across the board. By the time Food Lion's stores were open, prices in the market were down almost 15% (Poole, 1991).

Given that a typical gross margin in a supermarket is 20 percent, a 15 percent reduction, or for that matter, even a 5 percent reduction in price is not a profit maximizing move in the short run. Winn Dixie's strategy clearly was to forgo short run profits in an attempt to discourage and limit Food Lion's entry to maintain its market share and benefit from share related profits in the future. Winn Dixie is a tightly held chain store that consequently awaited the leverage wars of the 1980s. Thus, it has the resources to deploy and with operation in dozens of local markets throughout the Old South, it may be establishing a reputation for toughness so that Food Lion will refrain from entering other markets.³

III. Performance of the Food Distribution System for Low Income Urban Consumers

Given that income is a substantial constraint on the quality of life for low income urban consumers, the preeminent dimension of performance for them is the price of food. Related

³ This problem has been analyzed by game theorists. Selten shows in a repeated game with a fixed (finite) number of turns a chain store cannot establish a reputation for toughness. In a game with an infinite number of turns, however, strategies such as Winn Dixie's do work, i.e., they are credible threats. See Cotterill and Haller for a readable explanation and application to the supermarket industry.

performance dimensions include product quality, breadth of product selection, and geographic accessibility. A comprehensive assessment of price performance requires that we initially document the impact of mergers and leveraged buyouts on the financial health of the food retailing industry. More specifically we need to document the impact of mergers and LBOs upon retail price levels and examine whether shifts in industry organization have increased the relative price disadvantage faced by low income urban consumers.

An appropriate starting point for analysis of the impact of mergers and LBOs is the aggregate income and balance sheets of supermarket retailers for the years 1985-1989. Table 4 reports the annual income statements as a percent of sales. The impacts of financial restructuring due to LBOs and mergers throughout the industry is unmistakable. Interest expenses in the last two years are more than double their level in the first two years. Net income drops from over 1.1 percent of sales in the 1985-1987 period to approximately .8 percent of sales in the 1987-1990 period. Clearly, there is a shift in cash flow from stockholders to holders of debt.

Table 5 gives the corresponding balance sheets for the industry. Total term debt comprised primarily of bank loans, bonds and debentures, increased from 24.9 percent of total liabilities and equity in 1985-86 to 42.6 percent in 1989-90. Over the same period, total equity declined from 36.6 percent to 19.6 percent of total liabilities and equity. Mandel and Heinbockel, analysts at Goldman Sachs, moreover indicate that the total dollar amount of debt, as well as the debt equity ratio, increased dramatically during the late 1980s:

the aggregate amount of debt assumed by supermarket chains as a result of leveraged buyouts or recapitalizations over the 1986-1989 period alone exceeds \$20 billion, which is greater than the aggregate market value of all publicly traded supermarkets today (Mandel and Heinbockel p.1).

Table 4 INCOME STATEMENT FOR THE SUPERMARKET INDUSTRY

Income Statement for Supermarket Companies (In Percentages; Sales = 100%)

	1985-86	1986-87*	1987-88*	1988-89*	1989-90*
Sales	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Sales and Operating Expenses	97.84	97.86	98.01	98.01	97.55
Operating Income	2.16	2.14	1.99	1.99	2.45
Interest Expenses	0.55	0.61	0.87	1.13	1.33
Other Income	0.23	0.20	0.38	0.25	0.31
Income Before Taxes and Extraordinary Items	1.84	1.73	1.50	1.11	1.43
Total Taxes on Income	0.68	0.74	0.59	0.43	0.54
Extraordinary Items (Net)	0.03	0.13	(0.14)	0.03	(0.03)
Net Income	1.19%	1.12%	0.77%	0.71%	0.86%

* The financial restructuring of certain large retailers had a significant impact on the financial data in these years.

Source: FMI 1989-90 Annual Financial Review

This historically unprecedented increase in financial leverage and total value of the industry was concentrated primarily in the operations of large retailers (firms with sales of more than 500 million dollars annually). Large retail chain's return on assets declined from 5.72% of sales in 1985 to 2.78% of sales in 1989; as the value of their assets jumped dramatically. Due to increased leverage, their return on equity increased from 15.8 percent of sales in 1985 to 20.7 percent in 1989 (FMI).

It is very important to realize that these rates of return capture only a small portion of the shift in income to equity holders. When firms go LBO or are acquired in a merger, the stockholders that sell receive substantial premiums. The average premiums for 10 of the mergers and LBOs identified among the top 20 supermarket retailers was 85 percent over the benchmark stock price two months prior to the event's announcement. These premiums represent the capitalization of projected future income and are built into the capital base of the new firm through increased debt. As such, they depress post LBO return on assets. In fact, the general conclusion from research on mergers and LBOs for the entire economy is that the bidding game for control of the targeted corporation insures that most, if not all, of the perceived benefits from a change in control go to the stockholders who relinquish control of the target (Jensen and Ruback, 1983). The future increases in profits due to the LBO are capitalized in the deal and are the primary reason why the debt load of the industry has increased so dramatically.

None of the highly leveraged large supermarket chains have failed in the current recession, raising a fundamental question. Where is the increased cash flow necessary to cover the massive debt load of the industry and to generate an increase in return on equity for large

Table 5 THE CHANGING FINANCIAL STRUCTURE OF THE U.S. SUPERMARKET INDUSTRY

Current Liabilities	1985-86	1986-87*	1987-88*	1988-89*	1989-90*
TOTAL CURRENT LIABILITIES	35.60	38.81	36.62	34.19	34.51
Long-Term Debt					
Mortgages	6.11	10.07	6.69	7.49	7.07
Bank Loans	6.95	5.18	7.45	18.32	15.96
Bonds and Debentures	3.37	4.37	8.18	10.54	10.89
Capitalized Lease Obligations	5.90	5.36	5.39	5.01	5.37
Other Non-Current Liabilities	2.61	2.41	2.33	2.95	3.28
Total Long-Term Debt	24.94	27.39	30.04	44.31	42.57
Deferred Liabilities	2.83	3.19	4.22	3.45	3.22
TOTAL LIABILITIES	63.37	69.38	70.88	81.95	80.40
Equity					
Common Stock Outstanding of Proprietorship	3.95	3.74	3.44	2.48	2.48
Preferred Stock Outstanding	0.77	1.77	1.25	1.34	0.68
Paid-in Surplus	4.87	4.27	4.65	4.45	4.65
Retained	28.87	24.39	22.59	11.81	13.47
Treasury Stock	(1.83)	(2.95)	(2.81)	(2.03)	(1.67)
TOTAL EQUITY	36.63	30.62	29.12	18.05	19.60
TOTAL LIABILITIES AND EQUITY	100.00%	100.00%	100.00%	100.00%	100.00%

* The financial restructuring of certain large retailers had a significant impact on the financial data in these years.

Source: FMI 1989-90 Annual Financial Review

retail chains coming from? It has come from several sources. Real economies related to technology based increases in productivity is one source, but not a well documented one.

Pecuniary economies related to wage rate concessions and tougher trade relations with vendors has been a major contributor. The change in financial structure, essentially imposed by the investment community, placed leveraged firms in a very tough position, and thus gave them substantially more bargaining power. In the parlance of game theory, a highly leveraged chain's threat became credible because the LBO had committed it to an irrevocable quest for cash. It had to receive wage concessions or close, or sell stores. Faced with this narrow set of options, unions and suppliers often negotiated concessions. Thus, LBOs themselves created the increase in bargaining power vis-à-vis labor and other input suppliers necessary to generate part of the cash to make LBOs work.

Higher prices and gross margins in larger new superstores and combination stores with their extensive nonfood departments, and increased market power due to larger market shares and higher seller concentration also have contributed to the cash flow that has kept the industry solvent. On this point, Mandel and Heinbockel write:

The LBO phenomenon has accelerated the process of market consolidation...weak markets are sold off. Instead of Safeway deluding itself into thinking that one day it would become number one in southern California, management sold to Vons and chose to be a stockholder (30 percent ownership), hopefully benefitting from the improved economics of the combined company...Kroger sold its northern California Fry's stores to Savemart, and so on...The market share changes that have occurred in the country's two largest markets—New York and Los Angeles—over the last five years illustrate the impact of increasing concentration. Five years ago, five chains split 55% of the Los Angeles market. Now, three chains, Ralph's, Vons, and Lucky control 65%. Not surprisingly, the current returns of Ralph's, Vons, and Lucky are far superior to their returns of five years ago. The Los Angeles and New York markets have had a reputation for being two of the most ruthlessly competitive markets in the country, but the reality has been record operating margins for most of the chains in both markets

(e.g., Ralph's EBITD (earnings before interest, taxes and depreciation) margin is 7%, and A&P's profitability is now close to that in the Metro New York region) (Mandel and Heinbockel p. 6-7).

Research on the relationship between market concentration and retail food prices has in nearly all instances supported this observation (Cotterill, 1992).

I will now focus upon specific price performance impacts upon low income urban consumers. The shift in geographic location of supermarkets of any form away from urban inner city neighborhoods leaving smaller older stores to serve those neighborhoods clearly has resulted in the urban resident, whether she be poor or well to do, paying more for food. The choice is either shop nearby in a relatively high priced store format or travel via public transportation or automobile to a more distant large supermarket outlet. Appendix Table A2 illustrates the pricing/format relationship for Hartford, Connecticut. As documented by the 1987 report of this committee, research has moreover shown that low income urban consumers tend to pay even higher prices for lower quality products than other urban consumers. The food distribution system, for example, into the south Bronx is distinctly less efficient than the distribution system into the more affluent east side of Manhattan.

A 1988 study by the U.S. Department of Agriculture titled "Food Cost Variations: Implications for the Food Stamp Program" concludes otherwise stating that "low income households do not necessarily pay higher food prices" (Nelson & MacDonald, page i). This retail price study, however, has serious methodological problems that compromise its conclusions. The underlying retail price survey instrument that the USDA used did not compare the price of identical items across stores. Quoting from that report:

Enumerators were trained to price check each item that met the selected subcategory description in every sample store." (For example, this meant pricing each lettuce item stocked in the lettuce subcategory, such as iceberg, red and green leaf, Boston and others.) (Nelson & MacDonald, 1988, page 36).

At best this pricing method produces an estimate of the cost of all types of lettuce. At worst it compares the price a product such as fresh organically grown hydroponic lettuce in high class stores on the lower east side to week old run of the mill California lettuce in the Bronx. The lack of control for quality differences and more specifically product identity seriously compromised the resulting price indices used in the study because there was very little overlap in the products priced in different stores.⁴

The Food and Nutrition Service of the USDA recently issued a request for proposals that will provide a current estimate of the price and service performance of the food distribution system for low income consumers. FNS is asking that the contractor, among other things, conduct an extensive geographic analysis that will identify the location of particular store formats in relation to the location of low income consumers. The contractor is also requested to perform an indepth review of the measurement and methodological issues involved in making comparisons among store level prices, food selection, food quality, and levels of service.

On this latter point I would suggest that any future analysis of the performance of retailers vis-à-vis any particular consuming segment such as low income consumers recognize that distributional efficiency and distributional accuracy are two distinct and important subcomponents of any analysis of performance. Concerning prices, for example, distributional efficiency addresses the following question. Does the cost of a particular product, for example

⁴ For further discussion of this sampling problem see Geithman and Marion, 1992 and a Response by Kaufman and Handy, 1992.

Heinz ketchup, or grade A large white eggs, cost more in an inner city store than in some other store?

Distributional accuracy addresses the following question. Can an inner city consumer obtain acceptable quality food at a low price? The question is not whether Heinz ketchup is lower priced in the inner city, the question now is whether or not there is available a private label ketchup of similar quality at a significantly lower price. In other words, even if an inner city store did provide a particular set of items at the same price as more distant supermarkets the stores may not provide the product mix that gives inner city consumers the opportunity to lower food cost through the purchase of generic or private label items. Only large chains or independent supermarkets affiliated with a wholesaler (eg. Shop Rite, Super Value) can offer private label or generic product lines.

On a related note inner city consumers that shop at outlying suburban supermarkets may not have access to the particular product lines that would enable them to fully economize on their food purchases. Shelf space in any supermarket is limited and the merchandising strategies of that supermarket will be dictated by the effective demand of the shoppers that frequent the store. This means that more affluent shoppers may be able to bid shelf space away from less affluent shoppers in these stores. Another merchandising strategy that is important for the procurement of low cost food is couponing. Figure 6 documents coupon redemption levels. The number of coupons redeemed had more than doubled from 1980 to 1986 but there was little increase between 1986 and 1989. Critical questions are: do low income urban consumers use coupons as frequently as other consumers? Do they have access to stores that honor coupons? Is coupon usage factored into any study of relative prices that different consumers pay for food?

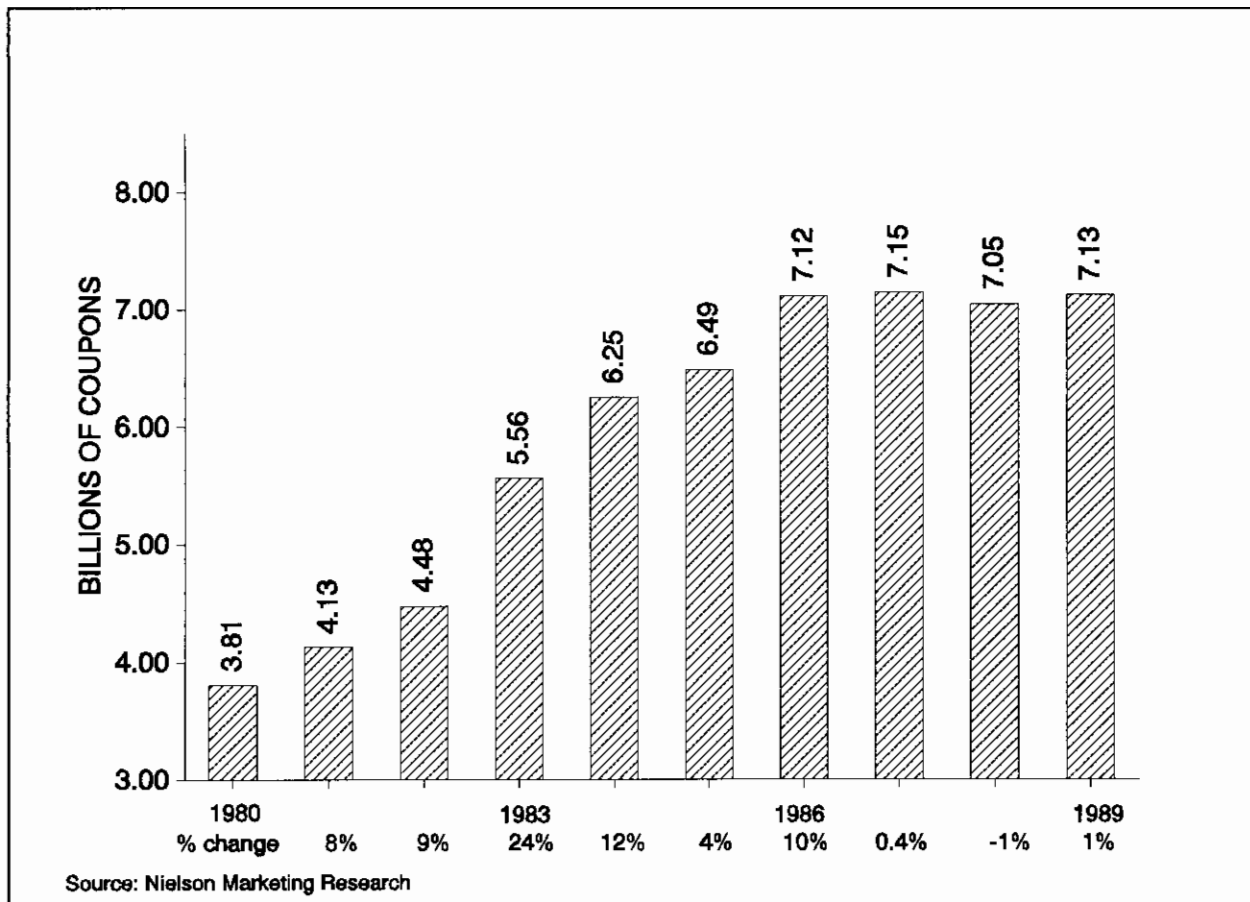


Figure 6. COUPON REDEMPTION TRENDS: (TOTAL COUPONS)

Source: Cotterill, Ronald, W., "Food Retailing: Mergers, Leveraged Buyouts, and Performance," Food Marketing Policy Center Research Report 14, University of Connecticut, September, 1991. Also in, Lawrence Deutsch, ed., *Industry Studies*, Prentice Hall:Englewood Cliffs, (forthcoming 1992).

IV. Policy Recommendations

In the wake of the merger and leveraged buyout wave most large supermarket chains have had their performance options strictly limited to the generation of cash flow to meet debt obligations. These leveraged chains have been forced to reduce costs, maintain retail prices and where possible raise retail prices. Leveraged chains have not been able to allocate many resources to capital investment to improve existing stores or open new stores.

This financial straight jacket has provided opportunities for supermarket chains and independent operators that are not highly leveraged. Leading chains such as Albertsons and Food Lion have been able to expand with relative impunity into new markets that are serviced by highly leveraged firms. However, when they encounter an unleveraged competition such as Winn Dixie in Jacksonville, the response is often less hospitable. Shoppers Food Warehouse, an independent operator in Washington, D.C. has grown into a local chain. It probably has found it easier to expand because Safeway, one of the two leading chains, was working its way out of a leveraged buyout. During the same period Giant, an unleveraged firm, was taking advantage of Safeway's position by allowing its prices to follow Safeway's to also generate increased cash flow. It used the cash to expand rapidly with new stores. Giant's market share in Washington increased from 33.2 percent in 1985 to 43.4 percent in 1990 while Safeway's share remained constant at approximately 24 percent (Metro Market Studies, 1986, 1991).

From the perspective of low income urban residents, these shifts in the industry have been beneficial when the result has been expansion of warehouse supermarkets in or near their neighborhood. Low income urban residents have not benefitted when horizontal mergers have eliminated competition among leading chain store supermarkets in their city and when market

extension mergers have eliminated potential competition. One fundamental policy recommendation for improving price performance in urban markets is more careful antitrust enforcement that is based upon empirical analysis of the performance of actual retail markets rather than abstract theoretical models that purport to demonstrate that competition exists without resort to actual market data. During the 1980s public policy promoted the transfer of cash from the industry and consumers to investors. Public policy during the 1990s needs to promote competition that results in efficiency gains being passed onto consumers as lower prices.

Moving to specific policy options to advance access to food in low income neighborhoods, programs that provide incentives such as tax breaks, low or no cost retail sites, community support organizations, and increased security may very well be able to shift the economic calculus that has heretofore prevented the success of supermarkets in these areas. Private enterprise zone policies if developed should certainly include food distribution.

I would caution the committee to go slow on any initiatives that would foster the development of consumer cooperative supermarkets. A state of the art, efficient, and effectively competitive supermarket requires very sophisticated management and extensive wholesaler support. Over the years I have done extensive research on consumer food cooperatives (Cotterill, 1982, 1984). Generally, the track record on cooperative supermarkets is not good. Consumer and community organizations usually do not have the level of business management expertise to operate supermarkets. More fundamentally they tend to have difficulty identifying such talent and combining it with adequate investment capital to produce a viable business. Much of the reason for their failure may be due to the same factors that have prevented private supermarket retailers from relocating in inner city urban areas. Simply organizing a cooperative

may not solve the underlying economic and social problems that prevent supermarket survival.

Joint public private initiatives to establish alternative food distribution systems have, I think, been an effective delivery vehicle for alleviating acute hunger problems in low income urban neighborhoods. Private businesses and consumers have supported food pantries, soup kitchens, and other sorts of direct food delivery to people in acute need of food. These actions, however, are usually regarded as outside the market based food distribution system.

More market oriented public private initiatives include programs such as publicly supported transportation for low income consumers to outlying supermarkets (mini van or bus programs that go directly to particular supermarkets) and preorder cooperative food purchasing programs are another structure that has had some success. They seem most successful in this context when they are operated under the aegis of public agencies that provide services to senior citizens, single mothers with small children, or other segments of the low income population. A preorder cooperative so organized usually places a VISTA volunteer or some other community oriented worker in close collaboration with a group of low income consumers so that the staffer can assist the group in operating the preorder food cooperative. The preorder cooperative is not a retail outlet. Rather it identifies a wholesale source of food and constructs a price list of particular foods that members of the group might wish to order. The price list is then circulated to members of the group and they place orders for food that are aggregated into one master order and then a designated representative of the group goes to the particular outlet, purchases the food, and brings it back for distribution to members of the group. The active involvement of a public staff person is often needed to provide the stability to what is otherwise an all volunteer operation. Also, the preorder food cooperative can serve as a vehicle for group

discussion of food and nutrition issues and possibly public assistance to modify purchase patterns and diet.

The near term future may also provide powerful new ways to attack the food access issue. Many large chains equipped with scanners are now moving to electronic identification cards that identify each consumers purchases in complete detail. The USDA also is considering a move to an electronic funds transfer version of food stamps that will enable supermarket scanners to identify who is purchasing what products with food stamps. These systems may be more operationally efficient for supermarkets and may help to reduce food stamp fraud, however, there may be another important benefit. With supermarket chain cooperation, low income consumers may be able to obtain their purchase records in electronic form. Public staff from agencies as the Cooperative Extension Service Expanded Food Nutrition Program could develop computer programs that use the purchase data to analyze purchase behavior and dietary intake. Low income shoppers could compare prices, economize, and improve their diet. The information could possibly be provided in workshop context to low income participants in the program. Also, the program may be able to provide feedback to retailers that enables them to improve distributional efficiency and accuracy for low income consumers.

In closing I would say that there is need for a renewed research effort to examine the economics of low income households. At this juncture I think we know more about the changing structure of the retail food distribution system than we do about the food purchase behavior of low income consumers. The particular type of shopping alternatives that these consumers will prefer ultimately depends upon not only the level of income but also their preferences for particular food products, their ability to store food products, their use of coupons, the amount of time they have available for shopping, their access to transportation, and

ultimately whether or not their urban neighborhoods can be revitalized into safe and vibrant communities. Thank you very much.

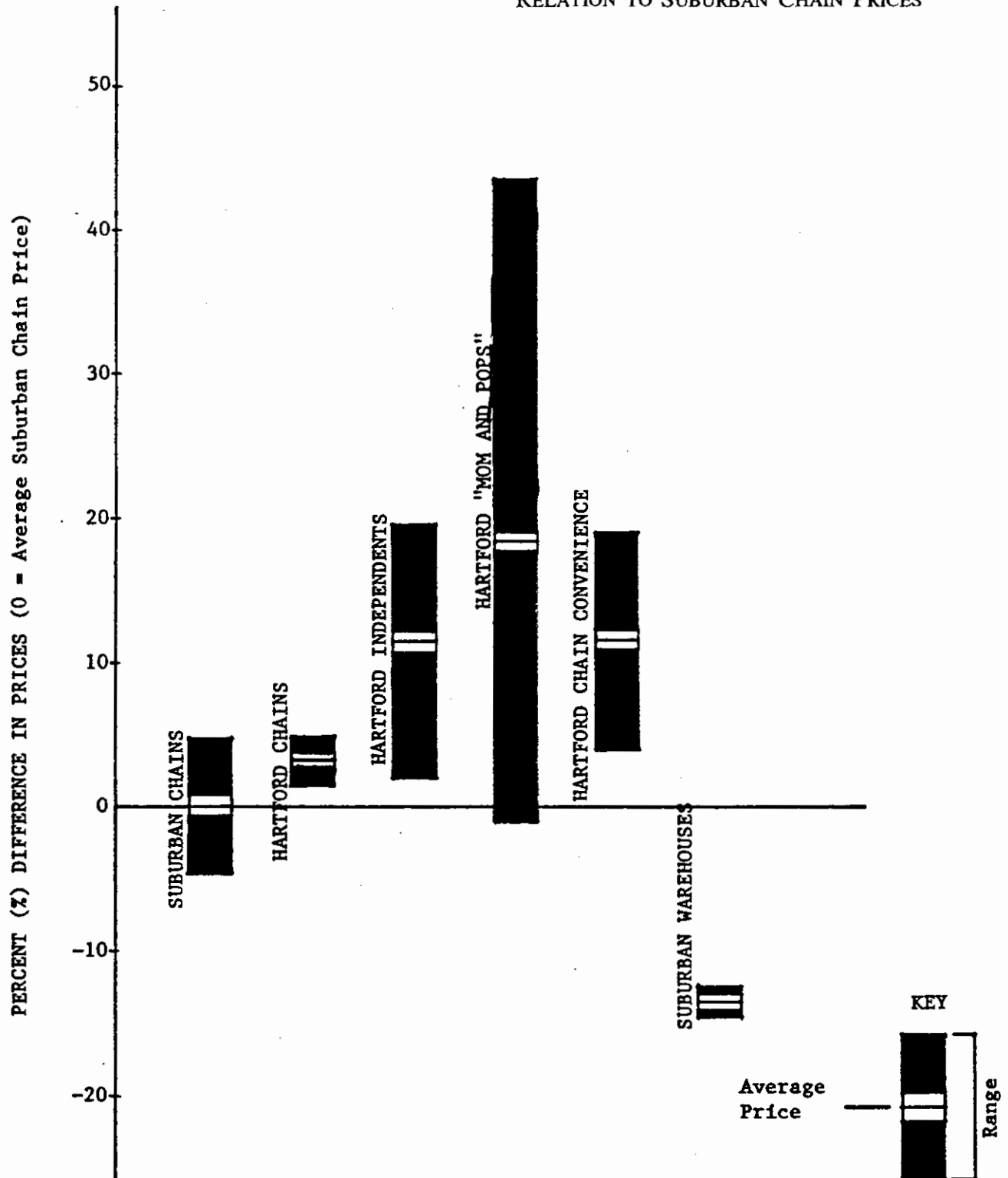
Appendix

Table A-1 List of MSAs from Figure 4 with Population Greater than 500,000

	MSA	1987 Population (x1000)
680	Bakersfield, CA	505
760	Baton Rouge, LA	538
8200	Tacoma, WA	545
2320	El Paso, TX	573
2960	Gary-Hammond, IL	604
8400	Toledo, OH	611
3160	Greenville-Spartanburg, SC	612
8520	Tucson, AZ	619
8160	Syracuse, NY	647
80	Akron, OH	647
640	Austin, TX	738
3320	Honolulu, HI	831
5960	Orlando, FL	935
4920	Memphis, TN	972
7160	Salt Lake City-Ogden, UT	1005
2680	Fort Lauderdale-Hollywood, FL	1163
3480	Indianapolis, IN	1229
1640	Cincinnati, OH	1438
7600	Seattle, WA	1796
1680	Cleveland, OH	1851
6780	Riverside-San Bernadino, CA	2119
360	Anaheim-Santa Ana, CA	2219
5380	Nassau-Suffolk, NY	2631
4480	Los Angeles-Long Beach, CA	8505
5600	New York, NY	8529

Appendix A2:

COMPARISON, BY STORE CATEGORY,
SHOWING PRICE AVERAGES AND RANGES IN
RELATION TO SUBURBAN CHAIN PRICES



Source: "The Poor Pay More: Food Shopping in Hartford," Hartford Food System, 1984 or Ronald W. Cotterill, Food Marketing Policy Center, University of Connecticut.

References

- Anderson, K. 1990. *A Review of Structure-Performance Studies in Grocery Retailing*, Federal Trade Commission, Bureau of Economics, Government Printing Office.
- _____. 1992. Structure-Performance Studies of Grocery Retailing: A Review. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Baldwin, W. 1981. What's a LFPINC? *Forbes*, February.
- Blatberg, R.C. 1986. Modeling the Effectiveness and Profitability of Trade Promotions. Working Paper No. 16, Center for Research in Marketing, University of Chicago.
- Bureau of Census. *Census of Retail Trade*. 1982, 1987.
- Bureau of Census. *Statistical Abstracts*. 1972, 1977, 1981, 1989, 1990.
- Cotterill, R. W., ed. 1982. *Consumer Food Cooperatives*. Danville, IL:Interstate Printers.
- _____. 1983. The Food Retailing Industry in Arkansas: A Study of Price and Service Levels. Unpublished report submitted to the Honorable Steve Clark, Attorney General, State of Arkansas.
- _____. 1984. *Retail Cooperatives in the Food System*. The Farm and Food System in Transition-Emerging Policy Issues no. 28. Cooperative Extension Service. Michigan State Univ.
- _____. 1985. *Effects of Electronic Information Technology on Employment and Economic Performance in the Food Manufacturing and Food Distribution Industries*, Research Monograph in fulfillment of Office of Technology Assessment Contract No. 533-0635 U.S. Congress.
- _____. 1986. Market Power in the Retail Food Industry: Evidence from Vermont. *Review of Economics and Statistics*, August: 379-386.
- _____. 1988. Mergers and Concentration in Food Retailing: Implications for Performance and Merger Policy. Testimony before the Subcommittee on Monopolies and Commercial Law, Committee on the Judiciary, U.S. House of Representatives.
- _____. 1991. *Food Retailing: Mergers, Leveraged Buyouts, and Performance*. Food Marketing Policy Center Research Report 14. University of Connecticut. September.
- _____. 1992. A Response to the Federal Trade Commission/Anderson Critique of Structure-Performance Studies in Grocery Retailing. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- _____, ed. 1992. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Cotterill, R.W. and L.E. Haller. 1987. Entry Patterns and Strategic Interaction in Food Retailing. *Issues After a Century of Competitive Policy*, eds. R. Wills, J. Caswell, and J. Culbertson, 203-222. Lexington: Lexington Books.
- _____. 1991. *Determinants of Entry: A Study of Leading U.S. Supermarket Chain Entry Patterns*. Research Report No. 11, Food Marketing Policy Center, The University of Connecticut.
- _____. 1992. Barrier and Queue Effects: A Study of Leading U.S. Supermarket Chain Entry Patterns. *Journal of Industrial Economics*. 40(4):1-14.
- Cotterill, R.W., and C. Iton. 1992. A PIMS Analysis of the Structure-Profit Relationships in Food Manufacturing. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Cotterill, R.W. and W. Mueller. 1980. The Impact of firm Conglomeration on Market Structure: Evidence for the Food Retailing Industry. *The Antitrust Bulletin*, Fall:557-582.
- Delchamps, Inc. v. The Great Atlantic Tea Co. Inc. Complaint for Declaratory and Injunctive Relief, U.S. District Court, Southern Alabama, Oct 17, 1988.
- Economic Report of the President 1990*, Washington: U.S. Government Printing Office.
- Federal Trade Commission, *Economic Report on Food Chain Selling Practices in the District of Columbia and San Francisco*, UAGPO, Washington, D.C. 1969.

- Food 4 Less to Purchase Alpha Beta. *The Food Institute Report*, April 6, 1991.
- Food Marketing Institute, 1989-1990 *Annual financial Review, The Annual Report of the Supermarket Companies*, Food Marketing Institute, 1990, p.7.
1977. Home-Baked Bread, Anyone? T.V. Sets? Blue Jeans? *Forbes*, May.
- Fuhrman, P. 1988. The Merchant of Mulheim. *Forbes*, Oct., 52.
- Geithman, F. and B.W. Marion. 1992. Testing for Market Power in Supermarket Prices: A Review of the Kaufman-Handy/ERS Study. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Greenberg, Jonathan. 1988. Sold Short. *Mother Jones*, May, 37-40.
- Hall, L., A. Schmitz and J. Cothorn. 1979. Beef Wholesale-Retail Marketing Margins and Concentration. *Economica* (August):295-300.
- Hannon, L.G. and G. Grinnel. 1985. Evolving Relationships between Food manufacturers and Retailers: Implications for Food System Organization and Performance. *American Journal of Agricultural Economics* (December):1065-1072.
- Jensen, M.C. and R. Ruback. 1983. The market for Corporate Control: The Scientific Evidence. *Journal of financial Economics* 11:5-50.
- _____. 1986. Agency Costs of Free Cash flow, Corporate Finance, and Takeovers. *American Economic Review* 76:323-329.
- Kaufman, P.R. and C.R. Handy. 1989. *Supermarket Prices and Price Differences: City, Firm, and Store-Level Determinants*. Economic Research Service, U.S. Department of Agriculture, Technical bulletin No. 1776. Government Printing Office.
- _____. 1992. The Geithman-Marion Review of the ERS Supermarket Pricing Study: A Response. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Lamm, R. McFall. 1981. Prices and Concentration in the food Retailing Industry. *Journal of Industrial Economics*, Sept., 67-78.
- Levin, D.J. 1990. The Supermarket Industry—Review and Outlook for the 1990s. *Salomon Brothers Stock Research* (September).
- Mandel, S.F. Jr. and J.E. Heinbockel. 1989. *Food Retailing Industry*. Goldman Sachs, Presented at the FMI Financial Executives Conference, 22 May, in Charleston, South Carolina.
- Manne, H.G. 1965. Mergers and the Market for Corporate Control. *Journal of Political Economy* 73:110-120.
- Marion, B.W. 1986. *The Organization and Performance of the U.S. Food System*. Massachusetts:Lexington Books.
- _____. 1987. Entry Barriers: Theory, Empirical Evidence, and the Food Industries. In *Issues After a Century of Federal Competition Policy*, ed. R. Wills, J. Caswell, and J. Culbertson. Lexington:Lexington Books.
- _____. 1989. The Concentration—Price Relationship in Food Retailing. *Concentration and Price*, ed. L.W. Weiss. Cambridge:MIT Press.
- Marion, B.W., K. Heimforth, and W. Bailey. 1992. Strategic Groups, Competition, and Retail Food Prices. In, R. W. Cotterill, ed. *Competitive Strategy Analysis in the Food System*. Boulder:Westview.
- Marion, B.W., W.F. Mueller, R.W. Cotterill, F.E. Geithman and J.R. Schmelzer. 1979. *The Food Retailing Industry: Market Structure, Profits, and Prices*. New York:Praeger.
- Marketing Guidebook. *Progressive Grocer*. 1981, 1991.
- Metro Market Studies. *Grocery Distribution Analysis and Guide*. 1986, 1987, 1988, 1992.
- Morgenson, G. 1990. The Buyout that Saved Safeway. *Forbes*, Nov., 88-92.

- National Commission of Food Retailing. *Organization and Competition in Food Retailing*. Technical Study No. 7, June, 1966.
- Nelson, P. E. Jr. and J. M. MacDonald. 1988. *Food Cost Variations: Implications for the Food Stamp Program*. U.S.D.A Economic Research Service. Tech. Bul. 1737. February.
- Nielson Marketing Research. 1990. *Grocery Store Trends*. Presented at the 1990 Packaged Food Company Seminar, November 7, in Chicago, IL.
- Poole, C. 1991. Stalking bigger Game. *Forbes*, April, 73-74.
- The Poor Pay More: Food Shopping in Hartford*. 1984. A Report by the Citizens' Research Education Network, Hartford Food System, Church of the Good Shepherd, and Department of Agricultural Economics, University of Connecticut.
- Annual Report of the Grocery Industry. *Progressive Grocer*. April 1988.
- Progressive Grocer. 1992. *Marketing Guidebook*.
- Rill, J.J. 1990. Sixty Minutes with the Honorable James F. Rill, Assistant Attorney General, Antitrust Division, U.S. Department of Justice. 59 *Antitrust L.J.*, 45.
- Selten, R. 1978. The CHain-Store Paradox. *Theory and Decision*. 9:127-159.
- Shepherd, W. 1979. *The Economics of Industrial Organization*. Englewood Cliffs: Prentice-Hall, Inc.
- Stigler, G. 1968. *The Organization of Industry*. Homewood:Richard Irwin Inc.
- U.S. Congress. House. Select Committee on Hunger. *Obtaining Food: Shopping Constraints on the Poor*. 100th Cong., 1st sess., 1987. Committee Print.
- Walsh, W.I. 1986. *The Rise and Decline of the great Atlantic and Pacific Tea Company*. New Jersey:L. Stuart.
- Weiss, L.W. ed. 1989. *Concentration and Price*. Cambridge:MIT Press.